

Amendments to the Specification:

Please replace the paragraph beginning at page 9, line 8 with the following amended paragraph:

Figures 9 through 21 show thirteen etch layers of a printed circuit board comprising primary and secondary windings that form part of a transformer. The printed circuit board is designed for use with four sets of core pairs of the kind shown in Figure 6, each pair comprising a top core piece 48 and a bottom core piece 50. As illustrated in Figs. 9 – 21, holes 62a, 62b in the printed circuit board accommodate narrow legs 61a, 61b ~~(Fig. 6)~~(Fig. 8) and slots 64 accommodate wide legs 63. The etch layers in Figures 9 and 15 comprise essentially identical sets of four secondary windings 70, 71, 72, 73 each winding in each layer being connected to its numerical counterpart in the other layer by means of the via connections between the layers (e.g., via connections marked “A”, “B”, “C”, and “D”). The etch layers in Figures 11 and 17 comprise essentially identical sets of four secondary windings 74, 75, 76, 77 each winding in each layer being connected to its numerical counterpart in the other layer by means of the via connections between the layers (e.g., via connections 66, 68, 90, 92 and those marked “A”, “B”, “C”, and “D”). The etch layers in Figures 12 and 18 comprise essentially identical sets of four secondary windings 78, 79, 80, 81 each winding in each layer being connected to its numerical counterpart in the other layer by means of the via connections between the layers (e.g., via connections 67, 69, 91, 93 and those marked “A”, “B”, “C”, and “D”). The etch layers in Figures 14 and 20 comprise essentially identical sets of four secondary windings 82, 83, 84, 85 each winding in each layer being connected to its numerical counterpart in the other layer by means of the via connections between the layers (e.g., via connections 66, 68, 90, 92 and those marked “A”, “B”, “C”, and “D”).

Please replace the paragraph beginning at page 10, line 13 with the following amended paragraph:

Figures 10, 13, 16 and 19 show etch layers comprising primary windings 86, 87, 88 and 89. Each primary winding passes through all four core pairs and current flowing in a winding induces essentially equal amounts of flux in each core pair. The regions mark "N" and "S" in, respectively, ~~Figures 12~~ **Figures 13** and 16, represent the ends of the complete primary winding. Region "N", in ~~Fig. 12~~ **Fig. 13**, connects to one end of winding 87; the other end of winding 87 connects to an end of winding 86 (Fig. 10) by means of vias "R"; the other end of winding 86 connects to vias "P" which connects to the pad marked "P" in Figure 21. Region "S", in Fig. 16, connects to one end of winding 88; the other end of winding 88 connects to an end of winding 89 (Fig. 19) by means of vias "Q"; the other end of winding 89 connects to vias "T" which connects to the pads marked "T" in Figure 21. In Figure 21 the pads "P" and "T" are surface-mount pads for connection of two resonant capacitors (not shown). One such capacitor is connected between a pad "T" and pad "P" and another capacitor is connected between the other pad "T" and pad "P." By this means the two capacitors are connected in parallel with each other and in series with all of the windings. A schematic of the connections between the four primary windings (86 - 89) of Figures 10, 13, 16 and 19, along with their corresponding pad locations, via interconnection designators and resonant capacitors (marked  $C_{R1}$  and  $C_{R2}$  in the Figure), is shown in Figure 23. The polarity dot on each winding reflects the relative polarity of the winding voltage for the same polarity of flux in each of the legs 61a, 61b and corresponding holes 62a, 62b.

Amendments to the Drawings:

The attached replacement sheets of drawings includes changes to Figs. 9-21 as described below and replace the original sheets including Fig. 1-23.

In Figure 9:

- (a) reference designations A and B were added to **holes** 62 to comply with the description at page 9, line 12 of the specification;
- (b) reference designations 70, 71, 72, and 73 were added to the **windings** to comply with the description at page 9, lines 13-17 of the specification.
- (c) reference designations 90, 91, 92, and 93 were added in place of incorrect reference designations 70, 71, 72, and 73 labeling the **connections** to comply with the description at page 10, lines 4-5 of the specification.
- (d) the lower short side (as shown in the informal drawing) of the layer, inadvertently cutoff in the informal drawing, has been restored in the formal drawing. The restored edge is not relevant to the description and therefore is not considered new matter.

In Figure 10:

- (a) reference designations A and B were added to **holes** 62 to comply with the description at page 9, line 12 of the specification;
- (b) reference designation 86 was added to the **winding** to comply with the description at page 10, lines 13-14 of the specification.
- (c) reference designations **P**, **R** were added to the **vias** to comply with the description at page 10, lines 18-20 of the specification. Additional support is found for example in Figs. 10-21 where these vias are also shown.
- (d) the figure is now drawn in outline format with many of the **vias** copied from the layers shown in Figs. 9-21 for ease of reference.

In Figure 11:

- (a) reference designations A and B were added to **holes** 62 to comply with the description at page 9, line 12 of the specification;

- (b) reference designations 74, 75, 76, and 77 were added to the **windings** to comply with the description at page 9, lines 17-20 of the specification.
- (c) reference designations 90, 92 were added in place of incorrect reference designations 70, 72 labeling the **connections** to comply with the description at page 9, line 20 and page 10, lines 4-5 of the specification.

In Figure 12:

- (a) reference designations **A** and **B** were added to **holes** 62 to comply with the description at page 9, line 12 of the specification;
- (b) reference designations **78, 79, 80, and 81** were added to the **windings** to comply with the description at page 9, lines 21-24 of the specification.
- (c) reference designations **91, 93** were added in place of incorrect reference designations 71, 73 labeling the **connections** to comply with the description at page 9, line 24 and page 10, lines 4-5 of the specification.

In Figure 13:

- (a) reference designations **A** and **B** were added to **holes** 62 to comply with the description at page 9, line 12 of the specification;
- (b) reference designation **87** was added to the **winding** to comply with the description at page 10, lines 13-14 of the specification.

In Figure 14:

- (a) reference designations **A** and **B** were added to **holes** 62 to comply with the description at page 9, line 12 of the specification;
- (b) reference designations **82, 83, 84, and 85** were added to the **windings** to comply with the description at page 9, lines 24-28 of the specification.
- (c) reference designations **90, 92** were added in place of incorrect reference designations 70, 72 labeling the **connections** to comply with the description at page 9, line 28 and page 10, lines 4-5 of the specification.

In Figure 15:

- (a) reference designations **A** and **B** were added to **holes 62** to comply with the description at page 9, line 12 of the specification;
- (b) reference designations **70, 71, 72, and 73** were added to the **windings** to comply with the description at page 9, lines 13-17 of the specification.

In Figure 16:

- (a) reference designations **A** and **B** were added to **holes 62** to comply with the description at page 9, line 12 of the specification;
- (b) reference designation **88** was added to the **winding** to comply with the description at page 10, lines 13-14 of the specification.

In Figures 17:

- (a) reference designations **A** and **B** were added to **holes 62** to comply with the description at page 9, line 12 of the specification;
- (b) reference designations **74, 75, 76, and 77** were added to the **windings** to comply with the description at page 9, lines 17-20 of the specification.

In Figure 18:

- (a) reference designations **A** and **B** were added to **holes 62** to comply with the description at page 9, line 12 of the specification;
- (b) reference designations **78, 79, 80, and 81** were added to the **windings** to comply with the description at page 9, lines 21-24 of the specification.

In Figure 19:

- (a) reference designations **A** and **B** were added to **holes 62** to comply with the description at page 9, line 12 of the specification;
- (b) reference designation **89** was added to the **winding** to comply with the description at page 10, lines 13-14 of the specification.

In Figure 20:

- (a) reference designations **A** and **B** were added to **holes** 62 to comply with the description at page 9, line 12 of the specification;
- (b) reference designations **82, 83, 84, and 85** were added to the **windings** to comply with the description at page 9, lines 24-28 of the specification.
- (c) reference designations **66, 68, 90, and 92** were added to the **connections** to comply with the description at page 9, line 28 and page 10, lines 4-5 of the specification.
- (d) reference designations **A, B, C, and D** were added to the connections to comply with the description at page 9, lines 25-28 of the specification. Additional support is found for example in Figs. 11-19 where these vias are also shown.
- (e) reference designations **P, T** were added to the respective **vias**. Support is found at page 10, lines 19-25 of the specification and in Figs. 9-21.
- (f) the figure is now drawn in outline format with many of the **vias** copied from the layers shown in Figs. 9-21 for ease of reference.

In Figure 21:

- (a) reference designations **A** and **B** were added to **holes** 62 to comply with the description at page 9, line 12 of the specification;
- (b) reference designations **H** and **W** and **measurement lines** were added to the drawing to comply with the description at page 11, lines 8-9 of the specification.
- (c) the figure is now drawn in outline format with many of the **vias** copied from the layers shown in Figs. 9-21 for ease of reference.

Attachments following last page of this Amendment:

Replacement Sheets (22 pages of Formal Drawings)  
Annotated Sheets Showing Changes (13 pages)